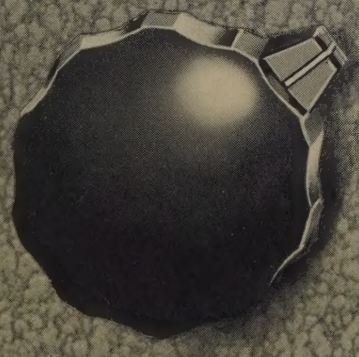
Kepco

INSTRUCTION MANUAL

* VOLTAGE REGULATED POWER SUPPLIES



Kepco Inc.

INSTRUCTION MANUAL:

2-4874 Curtical
cmpc

MODEL KR4
MODEL KR4M*

SERIAL NO. .....

OFFICIAL RECORDS STATION
FILE COPY
FACILITIES FEB 25 1971

KEPCO, INC.
131 - 38 Sanford Avenue
Flushing 52, New York

Kepco, Inc.
Flushing, New York

STANDARD POLICY COVERING REPRODUCTION AND USE OF TECHNICAL DATA FOR KEPCO MANUFACTURED EQUIPMENT

The technical data submitted, including manuals, parts information, and mechanical and electrical drawings, is furnished solely for the purpose of effecting maintenance and/or repairs to the apparatus therein described and the purchaser or the Government shall not reproduce, use, or disclose the said technical data, in whole or in part, for any other purpose. Such technical data shall not be used for promotional procurement, development or manufacturing purposes, nor shall the purchaser or the Government permit the reproduction, use, or disclosure of any part of said technical data by others. The purchaser shall notify the Government of the purchaser's limited right in the use of said technical data for aforesaid purposes. In the event that any part of this technical data is used by anyone for other than the above-authorized purposes, the purchaser will give all assistance possible for the prosecution of action against any unauthorized use thereof.

---

131 - 38 Sanford Avenue
Flushing 55, New York

VOLTAGE REGULATED POWER SUPPLY

MODEL KR4
MODEL KR4M*

SPECIFICATIONS:

DC OUTPUT VOLTAGE

VOLTAGE: 195-325 volts continuously variable.

CURRENT: 0-300 milliamperes continuous duty.

REGULATION: In the range 195-325 volts the output voltage variation is less than 0.2 volts for line fluctuation from 105-125 volts, and less than 0.2 volts for load variations from minimum to maximum current.

RIPPLE VOLTAGE: The ripple voltage is less than 3 millivolts RMS under any condition of loading and line voltage within the limits specified above.

AC OUTPUT VOLTAGES

VOLTAGE: Two 6.3 volts, unregulated, and isolated from chassis and DC output.

CURRENT: 5 amperes maximum each, may be operated in series or parallel. For series operation, 12.6 volts at 5 amperes, join terminals 5 to 6 and connect to 4 and 7. For parallel operation, 6.3 volts at 10 amperes, join terminals 4 to 6 and terminals 5 to 7 and connect to either pair.

FUSE PROTECTION: Input fuse and DC output fuses on front panel.

POWER REQUIREMENTS: 105-125 volts, 50-65 cycles.

OUTPUT TERMINATIONS: The DC and AC output terminals are brought out to a barrier strip on the rear of the chassis. Either positive or negative terminal of the DC supply may be grounded. A terminal is provided on the barrier strip for this purpose. Two blank terminals are also provided.

*METERS: Voltmeter: 0-500 volts, 3-1/2" rectangular.

Milliammeter: 0-300 milliamperes, 3-1/2" rectangular.

CONTROLS: Power on-off switch and DC on-off switch on front panel. DC output control - screwdriver locking type mounted at the rear of the chassis.

PHYSICAL SPECIFICATIONS: Rack panel construction. Panel height 7", width 19", depth 11", color Kepco standard gray hammertone. This unit is designed for relay rack mounting.

OPERATING INSTRUCTIONS: The Kepco Model KR4, KR4M Regulated Power Supply is shipped with all tubes in place and is ready for operation.

PROCEDURE FOR TURNING ON POWER SUPPLY:

Turn on the AC power switch. A time delay relay will operate after a 1/2 minute warm up period. Turn on the DC output switch to apply the regulated voltage to the load.

The time delay relay in this unit is a thermal type. When the thermal time delay relay closes, an auxiliary double pole-double throw relay is activated. One half of this relay removes the heater voltage from the time delay relay. The other half of the relay closes the primary circuit of the high voltage plate transformer. In the event that the line voltage should fail momentarily, this double pole-double throw relay will be de-energized.

Digitized by the Internet Archive
in 2026

https://archive.org/details/manualsplus_12645

When the line voltage is again turned on, the DC voltage will not re-appear for approximately 30 seconds.

To adjust the DC output voltage to any setting within the range of the instrument, loosen the locking nut on voltage control. Set the control to the desired voltage and then tighten the locking nut.

MAINTENANCE: The components of the Model KR4, KR4M Regulated Power Supply have been selected and tested to provide long and trouble free operating life. The only service necessary should be the replacement of vacuum tubes. The location of the tubes is clearly marked on the chassis.

REPAIRS: Should any trouble develop in the instrument, it may be serviced with the aid of the schematic diagram. Major repairs, however, are usually handled by the factory.

Under no circumstances should the instrument be returned to the factory without proper authorization and shipping instructions. In any correspondence with the factory concerning repairs, the type and serial number of the instrument must be given together with a description of the trouble encountered.

PARTS LIST - MODEL KR4, KR4M*

DRAWING S-KR4, KR4M-01

C1	- 4	MF	1000 WV
C2	- 8	MF	1000 WV
C3	- 8	MF	1000 WV
C4	- 22	MMF	2000 WV
C5	- .001	MF	2000 WV
C6	- 0.1	MF	600 WV
C7	- 0.25	MF	600 WV
C8	- 0.1	MF	600 WV
C9	- 500	MMF	2000 WV
C10	- 500	MMF	2000 WV
C11	- 0.1	MF	600 WV
C12	- 0.01	MF	2000 WV

F1	- 6 Amp. Fuse
F2	- 1/2 Amp. Fuse

*M1	- Milliammeter: 0-300 MA DC
*M2	- Voltmeter: 0-500 V DC

PL1	- Neon Pilot Light NE-51
PL2	- Neon Pilot Light NE-51

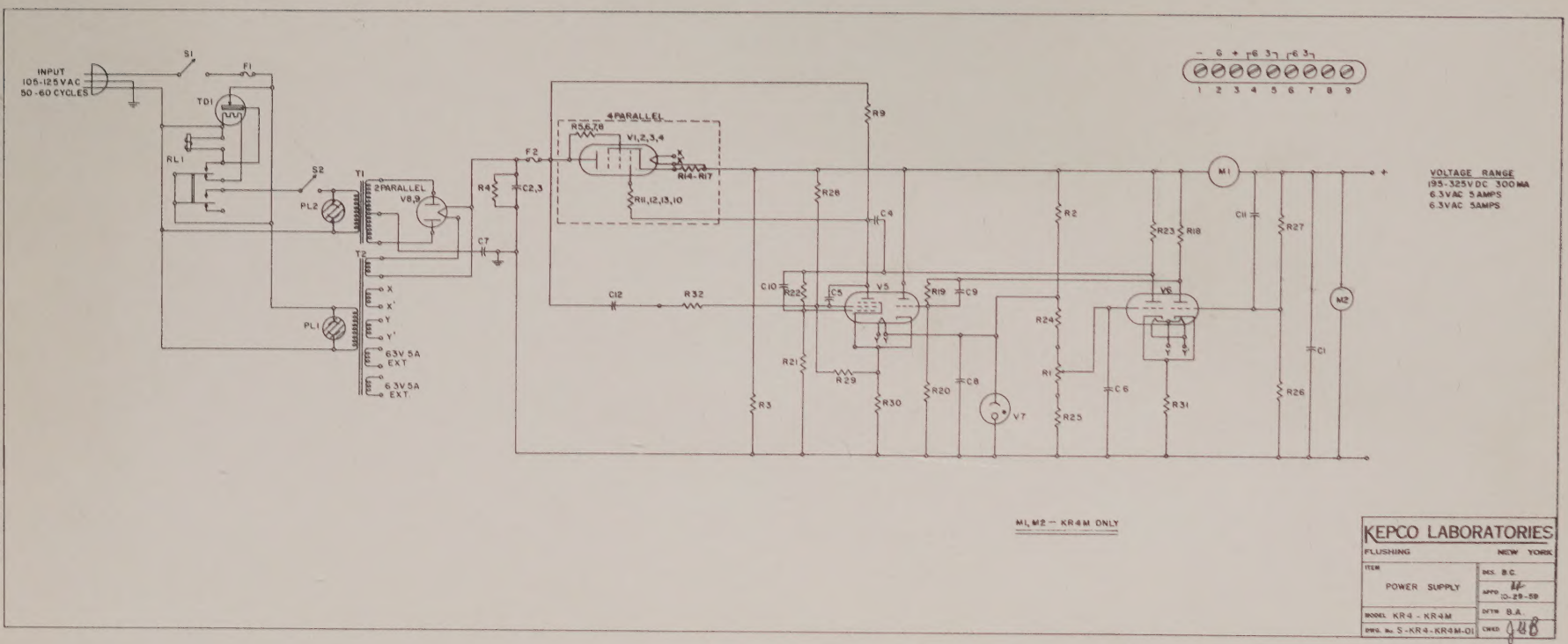
R1	- 250	K	2 watt Pot.
R2	- 30	K	10 watt
R3	- 50	K	10 watt
R4	- 100	K	20 watt
R5	- 100	Ohm	1 watt
R6	- 100	Ohm	1 watt
R7	- 100	Ohm	1 watt
R8	- 100	Ohm	1 watt
R9	- 1.2	Meg.	1 watt
R10	- 100	Ohm	1 watt
R11	- 100	Ohm	1 watt
R12	- 100	Ohm	1 watt
R13	- 100	Ohm	1 watt
R14	- 47	Ohm	1 watt
R15	- 47	Ohm	1 watt
R16	- 47	Ohm	1 watt
R17	- 47	Ohm	1 watt
R18	- 560	K	1 watt
R19	- 1.2	Meg.	1 watt
R20	- 3.6	Meg.	1 watt

PARTS LIST - MODEL KR4, KR4M*

DRAWING S-KR4-KR4M-01

R21	- 3.6	Meg.	1 watt
R22	- 1.2	Meg.	1 watt
R23	- 560	K	1 watt
R24	- 100	K	1 watt
R25	- 150	K	1 watt
R26	- 56	K	1 watt
R27	- 270	K	1 watt
R28	- 150	K	1 watt
R29	- 56	K	1 watt
R30	- 10	K	5 watt WW
R31	- 82	K	1 watt
R32	- 470	K	1 watt

RL1	- DPDT Relay
S1	- SPST Switch
S2	- SPST Switch
T1	- Kepco #100-559
T2	- Kepco #100-564
TD1	- 117-30-GO or 115 NO 30T
V1	- 6550
V2	- 6550
V3	- 6550
V4	- 6550
V5	- 6U8
V6	- 12AX7
V7	- 85A2/OG3
V8	- 5U4GB
V9	- 5U4GB


INPUT
105-125 VAC
50-60 CYCLES
S1
F1
TD1
RL1
S2
T1
2 PARALLEL
V8,9
PL2
PL1
T2
X
X'
Y
Y'
6.3V 5A
EXT
6.3V 5A
EXT
R4
C2,3
C7
F2
4 PARALLEL
R5,6,7,8
V1,2,3,4
R14-R17
R11,12,13,10
R9
R28
C4
C12
R32
C10
R22
C5
V5
R19
C9
R21
R29
R30
R20
C8
R3
V7
R24
R1
R25
C6
R31
V6
R2
R23
R18
C11
R27
C1
R26
M1
M2
- G + 6.3 6.3
1 2 3 4 5 6 7 8 9
VOLTAGE RANGE
195-325VDC 300MA
6.3VAC 5AMPS
6.3VAC 5AMPS
M1, M2 — KR4M ONLY
KEPCO LABORATORIES
FLUSHING NEW YORK
ITEM
POWER SUPPLY
MODEL KR4 - KR4M
DWG. No. S-KR4-KR4M-01
DES. B.C.
APPD 10-29-59
DFTR B.A.
CHKD

Kepco inc.

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING 55, N. Y. • IN 1-7000